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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/201,228      | 11/30/1998  | REMY GRIFFAIS        | 9710-004            | 1303             |

23557 7590 06/14/2004

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EXAMINER

MARSCHEL, ARDIN H

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1631

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/201,228

Applicant(s)

GRIFFAIS ET AL.

Examiner

Ardin Marschel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,8-16,30,51,52 and 57-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,8-16,30,51,52, and 57-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>two sequence printouts</u> .           |

### **DETAILED ACTION**

Due to newly applied rejections as summarized below, the finality of the Office action, mailed 12/16/03, has been withdrawn. The amendment, filed 3/3/04, has been entered.

Applicants' arguments, filed 3/3/04, have been fully considered and they have been persuasive to overcome rejections previously of record. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. Upon reconsideration, the following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

### **VAGUENESS AND INDEFINITENESS**

Claims 1-3, 8-16, 30, 51, 52, and 57-65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of the pending claims either directly or via dependence cites a set of open reading frames (ORFs) with corresponding SEQ ID Nos. In claim 1, for example, these are set forth with SEQ ID Nos. for amino acids and in claim 59 they are set forth in what is reasonably interpreted as indicative of corresponding nucleotide segments from SEQ ID NO: 1. The below two paragraph describe inconsistencies that are present between all pending claims due to inconsistent citation of ORF contents. Clarification via clearer claim wording is requested.

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Said set includes ORF 1159 which is cited both regarding SEQ ID NO: 1159 in claims, such as claim 1, as well as in claim 59 citing nucleotides 610110 – 310391 of SEQ ID NO: 1. SEQ ID NO: 1159 contains 94 amino acids which would be encoded by  $3 \times 94 = 282$  nucleotides. Confusingly, the ORF 1159 in claim 59 is cited for nucleotides 610110 – 310391 which is 299720 nucleotides which may encode 99906.7 nucleotides. The claims therefore are unclear which defines ORF 1159. Apparently some type of numerical error is present, probably in claim 59, part i).

A similar inconsistency is present regarding ORF 1091. SEQ ID NO: 1091 contains 103 amino acids which are encoded by 309 nucleotides. In claim 59, part c), this ORF 1091 is cited with nucleotides 114017 – 113715 which comes to 303 nucleotides which would encode 101 amino acids and not the ORF 1091 sequence of 103 nucleotides.

#### **PRIOR ART**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 9, 10, 13, 14, and 57-61 are rejected under 35 U.S.C. 102(e)(2) as being clearly anticipated by Black et al. (P/N 6,207,647).

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Black et al. discloses SEQ ID NO: 1 therein which is a nucleotide sequence of a polynucleotide as instantly claimed. This sequence is an E. coli vector cloned sequence isolated from chromosomal DNA as described in Example 1 in column 23 of the reference. Such chromosomal DNA as well known to be double stranded and thus SEQ ID NO: 1 of the reference describes the strand of SEQ ID NO: 1 as well as its full complement. As seen from the attached sequence alignment for ORF 1140 bases 911 – 630 as complemented from SEQ ID NO: 1 of the reference exactly matches the sequence of ORF 1140 as set forth in instant claim 59, part h). Thus, instant claim 59 is anticipated via this embodiment therein. This polynucleotide is also the encoding polynucleotide of the other instant claims therefore as well. It is noted that the name of the gene sequence in Black et al. is *ratA*, however, that this is a gene from the RNA-dependent amido transferase or RAT gene family in bacteria of the *Chlamydia trachomatis* type. See column 1, lines 50-52, and column 2, lines 45-50.

Claims 2, 3, 9, 10, 13, and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cousineau et al. [Gene 120(1) 33 (1992)].

Cousineau et al. discloses a *Chlamydia trachomatis* gene sequence on page 34 in Figure 1 which matches the polynucleotide cited in claim 59, part b), as nucleotides 112089 – 111734 of SEQ ID NO : 1 which corresponds to ORF 1089 as claimed in instant claims 2 etc. See the attached sequence alignment showing a 96.1 % sequence identity. As discussed in the Figure legend the gene was cloned into a Bluescript vector for sequencing and thus also anticipates the vector and corresponding host cell instant claims which includes high or intermediate stringency polynucleotides as claimed.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 3, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Southern (WO 89/10977).

Southern describes the preparation and use of arrays of polynucleotides as is summarized in the abstract. The arrays described include those that contain all sequences of a given length as set forth on page 7, line 34, through page 9, line 21. The hybridization of such arrays with a sample is cited on page 6, lines 6-11. With all sequences of a given length for which hybridization is available a hybridizable segment under stringent conditions is suggested and motivated given all possible segments on such an array as would include such hybridizable sequences in instant claims 2 and 3 and correspondingly instant claim 30.

Thus, it would be obvious to someone of ordinary skill in the art at the time of the instant invention to practice the Southern type array with its full set of polynucleotide

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sequences thereon to thus be inclusive of the instantly claimed polynucleotides and DNA chip.

No claim is allowed.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the Central PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The Central PTO Fax Center number is (703) 872-9306.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (571) 272-0718. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (571) 272-0722.

Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instrument Examiner, Tina Plunkett, whose telephone number is (571) 272-0549.

June 9, 2004

  
ARDIN H. MARSCHEL  
PRIMARY EXAMINER 6/9/04